

mind half a dozen little streams in the tropics, similar in size and general character to Davis Creek, and at once I recall a dozen species which made the ripples flash with color, or which sat motionless on dead twig tips on the darkest stretches of the creeks, giving life and vivacity to a somber forest. No such wealth of odonate life exists on Davis Creek where individuals are as rare as species, except for occasional assemblages of *Calopteryx maculata*. Frequently at sunrise individuals of this species were seen resting inertly on leaves with all four wings spread flat.

Undescribed Crane-flies from Argentina (Tipulidae, Dipt.) Part V.

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The types of the novelties described in this paper are preserved in the collection of the writer through the great kindness of Dr. Bruch and Señor Weiser, to whom my thanks are due.

Dicranomyia omissivena sp. n.

General coloration whitish yellow; antennal flagellum brown; wings whitish subhyaline, veins pale; *Sc* long, cell 1st *M2* open by the atrophy of the outer deflection of *M3*.

♂.—Length 4.2 mm.; wing 5.4 mm. ♀.—Length 4.8 mm.; wing 6 mm. Rostrum and palpi pale. Antennae with the scapal segments pale yellow, the flagellum gradually darkening into brown. Head pale yellow.

Mesonotum pale whitish yellow without darker markings. Pleura whitish yellow with slight green reflexions. Halteres pale whitish yellow. Legs pale whitish yellow with only the terminal tarsal segments dark brown.

Wings whitish subhyaline; veins pale. Venation: *Sc* long, *Sc1* ending opposite or just beyond midlength of *Rs*, *Sc2* at tip of *Sc1*; *Rs* about twice the deflection of *R4+5*; cell 1st *M2* open by the atrophy of the outer deflection of *M3*; petiole of cell 2nd *M2* shorter than the cell; basal deflection of *Cu1* close to the fork of *M*.

Abdomen whitish, the segments with greenish reflexions.

Habitat: Argentina. *Holotype*, ♂, Quebrada Famaillá, Tucumán, altitude 1600 meters, October 16, 1920 (V. Weiser). *Allotopotype*, ♀. *Paratopotypes*, 3 ♂ ♀.

Geranomyia (Geranomyia) gaudens sp. n.

General coloration of the thorax gray; halteres yellowish at base, the knobs brown; wings subhyaline, handsomely spotted and clouded with brown and gray, this including a series of four brown subcostal spots; *Sc* long, cell 1st *M*2 closed; basal deflection of *Cu*1 before the fork of *M*.

♂.—Length (excluding rostrum) 8.6 mm.; wing 10.5 mm. ♀.—Length (excluding rostrum) 7.5-8 mm.; wing 8.8-9 mm.; rostrum 4.5-4.7 mm.

Rostrum elongate, the paraglossae beyond the palpi partly lost; when entire, the rostrum would extend to at least one-third the length of the abdomen, dark brown, the palpi concolorous. Antennae dark brown, the flagellum broken. Front and anterior part of the vertex with a golden-yellow pollen; remainder of vertex dark brown, the broad median area and a narrow border adjoining the eyes more grayish.

Pronotum gray, the lateral margins obscure yellow. Mesonotal praescutum dark gray with three lighter gray stripes, the median one of which is bisected anteriorly by a line of the ground color; scutum light gray, the lobes dark gray; scutellum reddish, gray pruinose; postnotum gray. Pleura brown, gray pruinose; dorso-pleural membrane obscure buffy-yellow. Halteres white, the knobs dark brown, the base of the stem yellowish.

Legs with the coxae yellow, the outer face infuscated, this including nearly the basal half of the fore coxae, a large area on the middle coxae and a slight cloud on the posterior coxae; trochanters yellow; remainder of legs broken except the basal half of the posterior femora which are testaceous.

Wings subhyaline, handsomely spotted and clouded with brown and gray; stigma brown; a series of four dark brown areas in the subcostal cell, the third at the origin of *Rs*, the last at *Sc*2; cord and outer end of cell 1st *M*2 seamed with brown; conspicuous gray clouds in cell *R* beneath the brown subcostal spots, before the ends of the outer radial cells, at the ends of both anal veins and in the anal angle of the wing; veins pale, brown in the darkened areas. Venation: *Sc* long, *Sc*1 ending about opposite midlength of *Rs*, *Sc*2 at tip of *Sc*1; a supernumerary crossvein in cell *Sc*; *Rs* long, angulated and slightly spurred at origin; *r* more than its length from the tip of *R*1; *r-m* obliterated by contact of the long deflection of *R*4+5 on *M*1+2; *m* only about one-third to one-fourth of the outer deflection of *M*3; basal deflection of *Cu*1 at about one-third its length before the fork of *M*.

Abdomen dark brown, the pleural appendages of the hypopygium obscure orange.

Habitat: Argentina. *Holotype*, ♂, San Pedro de Colalao, Tucumán, altitude 2500 meters, January 28, 1921 (V. Weiser).

Allotype, ♀, Caspinchango, Catamarca, altitude 2500 meters, March 28, 1921 (V. Weiser). *Paratype*, ♀, with the allotype, March 2, 1921.

The female is entirely similar to the male. The femora are yellow with a conspicuous, dark brown, subterminal ring.

***Rhabdomastix (Sacandaga) complicata* sp. n.**

General coloration dark brownish gray; wings tinged with brown, the extreme base paler in both sexes; *m* short or obliterated; male hypopygium with the outer pleural appendage bifid at apex, the lower arm bearing two long, chitinized teeth.

♂.—Length about 3.6 mm; wing about 3.2 mm. ♀.—Length 3.5-4 mm.; wing 3.6-4.2 mm.

Rostrum and palpi brownish black. Antennae with the scapal segments brownish black; flagellum slightly paler brown; flagellar segments subglobular. Head dark brownish gray with a sparse bloom.

Mesonotum dark brownish gray, the usual three praescutal stripes a little darker brown but very poorly defined. Pleura brownish gray. Halteres light yellow. Legs black, the femoral bases in some cases a little paler, in other cases the femora nearly uniform throughout.

Wings with a brownish tinge, the extreme base paler, this including the cells proximad of arculus; veins brown. Venation: *Sc*1 ending about opposite two-fifths the length of *Rs*, *Sc*2 near midlength of the distance between the origin of *Rs* and the tip of *Sc*1; *r* a short distance beyond the fork of *M*; cell 1st *M*2 closed; *m* short to lacking, cell 2nd *M*2 in some cases being short-petiolate; basal deflection of *Cu*1 a short distance beyond the fork of *M*.

Abdomen dark brownish black. Male hypopygium generally similar to that in *R. basalis*, but the outer pleural appendage much more complex, appearing as a narrow arm that is expanded apically and here deeply bifid, the lower branch being chitinized and deeply notched apically, the outer edge of this notch produced into two long, blackened teeth, the margins of the notch feebly denticulate; inner pleural appendage much longer and stouter than in *basalis*, only a little shorter than the outer pleural appendage. The digitiform lobe on the inner face of each pleurite is stouter than in *basalis*. Ovipositor with the valves horn-colored.

Habitat: Argentina. *Holotype*, ♂, Masao, Catamarca, altitude 2500 meters, February 10, 1921 (V. Weiser). *Allotype*, ♀, Caspinchango, Catamarca, altitude 2500 meters, February 23, 1921 (V. Weiser). *Paratopotypes*, 5 ♀'s.

Rhabdomastix complicata is allied to *R. basalis* Alex. (Argentina), but is readily told by the darker coloration, the almost uniform wings in both sexes and the complex male hypopygium.

***Tipula amoenicornis* sp. n.**

General coloration dull yellow; antennae elongate, bicolorous, the basal enlargement of the segments dark brown, the remainder yellow; wings with a strong yellowish brown tinge, cells *C* and *Sc* more saturated; abdomen reddish orange with a conspicuous black subterminal ring.

♂.—Length 12.5 mm.; wing 12.3 mm. Frontal prolongation of the head brownish yellow, the palpi concolorous, with the terminal segments darker. Antennae elongate, if bent backward extending to beyond the base of the abdomen; scapal segments obscure yellow; flagellar segments bicolorous, obscure yellow, the basal enlargement of each segment dark brown except at the extreme base; terminal flagellar segments broken. Head obscure brownish yellow.

Mesonotum dull brownish yellow without markings, the posterior sclerites more testaceous. Pleura yellowish testaceous. Halteres pale, the knobs faintly darker. Legs with the coxae and trochanters light yellow; remainder of the legs pale yellowish brown, only the tarsi passing into dark brown.

Wings with a strong yellowish brown tinge, the base and cells *C* and *Sc* more saturated; stigma small, oval, brown; a conspicuous obliterative area before the stigma, reappearing across the base of cell 1st *M*2; veins dark brown. Venation: *Rs* short, arcuated beyond mid-length; cell 2nd *R*1 very small; parallel-sided; tip of *R*2 preserved; cell *M*1 about twice the length of its petiole; cell 1st *M*2 narrowed distally, *m* being about two-thirds the basal deflection of *M*1+2; *m-cu* elongate.

Abdomen conspicuous reddish orange; conspicuous black areas on lateral margins of tergites two, three and four; a conspicuous black ring including all of segment seven and all of eight except the broad posterior margin of the eighth sternite. Male hypopygium with all the sclerites separate, the ninth pleurite large. Caudal margin of the ninth tergite with a shallow V-shaped notch, the mesal margins of the lobes densely hairy; ventro-median portion of the tergite at the apex of the notch produced into a pendulous, bilobed appendage that is densely hairy. Pleural appendage flattened, the apex narrowly margined with black, at the base on the outer face a conspicuous blackened lobe that is microscopically spinulose. Ninth sternite extensive, the median portion filled with membrane, at the caudal margin of which hangs a very conspicuous, median, elongate, slender, hairy lobe that is split at the apex into two small, digitiform appendages. Eighth sternite unarmed.

Habitat: Argentina. *Holotype*, ♂, San Pedro de Colalao, Tucumán, altitude 2500 meters, January 27, 1921 (V. Weiser).